CLAIMS

1. A method of screening or testing for candidate anti-fungal compounds that impair 1-phosphotidylinositol-4-phosphate 5-kinase enzyme (MSS4) function, comprising:
a) providing fungal MSS4;
b) providing one or more candidate compounds;
c) contacting said MSS4 with said one or more candidate compounds; and
d) determining the interaction of the candidate compound with said MSS4.

2. A method according to claim 1 wherein the MSS4 comprises a fragment, a function-conservative variant, an active fragment or a fusion protein of MSS4.

3. A method according to any one of claims 1 or 2, wherein the fungal MSS4 is from fungus of *Candida* or *Aspergillus* species.

4. A modified eukaryotic cell(s) wherein the cell(s) expresses fungal MSS4 under the control of a heterologous promoter.

5. The cell according to claim 4 which is a *C. albicans* cell.

6. The cell according to any one of claims 4 or 5, wherein the MSS4 is homologous.

7. The cell according to any one of claims 4 to 5, wherein the MSS4 comprises a fragment, a function-conservative variant, an active fragment or a fusion protein of MSS4.

8. A method of screening or testing for candidate anti-fungal compounds that impair 1-phosphotidylinositol-4-phosphate 5-kinase enzyme (MSS4) function, comprising:
a) providing fungal MSS4 in a eukaryotic cell(s) as defined in any one of claims 4 to 7;
b) providing one or more candidate compounds;
c) contacting said eukaryotic cell(s) with said one or more candidate compounds; and
d) determining the interaction of the candidate compound with said MSS4 by assessing the effect on growth or viability of said cells.

9. A compound identified by the method of claims 1, 2, 3 or 8, which impairs MSS4 function for use as an antifungal compound.

10. A pharmaceutical composition comprising a MSS4 inhibitor and a pharmaceutically acceptable carrier.

11. *Candida* or *Aspergillus* MSS4 as a specific target for antifungal compounds.

12. The use of a MSS4 inhibitor, in the manufacture of a medicament for the treatment of fungal infections.

13. The use of a MSS4 inhibitor, in the manufacture of a medicament for the treatment of fungal infections in a subject who is immunosuppressed.

14. The use according to claim 12 or 13 wherein the fungal infection is a topical, mucosal or systemic fungal infection.

15. The use according to claim 14 wherein the topical or mucosal fungal infection is caused by species of *Candida* or the systemic fungal infection is caused by species of *Candida* or *Aspergillus*.

16. The use according to any one of claims 12 to 15 wherein said compound impairs fungal MSS4 function to a greater extent than host MSS4 function.